

Environmental Stewardship Division

2011 Annual Report

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The Environmental Stewardship Division (ESD) administers the Michigan Department of Agriculture and Rural Development's (MDARD) many programs that encourage environmentally sound agricultural practices and prevent agriculture-related pollution. ESD seeks to enhance commercial agriculture activities in Michigan, while protecting the environment and public health.



Biosolids Land Application Program

The MDARD provides education and technical assistance to individuals involved with or affected by the land application of biosolids. State law allows all wastewater treatment facilities in Michigan the option to safely recycle biosolids to cropland as a soil amendment to provide plant nutrients.

The MDARD delivers education and technical assistance in a number of ways, including the “Amendments” quarterly newsletter, a “Commonly Asked Questions” brochure, and an information page to local conservation districts. The MDARD also partners with the Michigan Department of Environmental Quality (MDEQ), Michigan State University Extension, and the Michigan Water Environment Association to provide education to farmers, wastewater technicians, and township officials.

2011 Accomplishments:

- 162 wastewater treatment facilities participated in the land application program
- 74,000 dry tons of biosolids were recycled to cropland on Michigan farms
- Over 20,000 acres of Michigan cropland received this “soil amendment”
- The nutrient value equates to over \$10 million saved by farmers using biosolids instead of commercial fertilizers

Farmland and Open Space Preservation Program

The Farmland and Open Space Preservation Program preserves agricultural and open space supporting economic diversity and quality of life for current and future needs of citizens of the State of Michigan. In an agreement with the state, landowners choose to keep their land in agricultural production. In exchange, the state offers the landowner the opportunity to claim a tax credit. Farmers are offered exemption from special assessments for sewer, water, lights, and non-farm drainage.

2011 Accomplishments:

- 41,500 agreements covering 3,100,000 acres in P.A. 116 (P.A. 451 of 1994, as amended)
- 97 conservation easements covering 20,873 acres in the State Permanent Program
- 45 agreements covering 6,000 acres in the Local Open Space Program
- 12 open space easements covering 3,500 acres in the Designated Open Space Program
- 11 local conservation easements (936 acres) completed under grants issued by the Michigan Agricultural Preservation Fund in two grant cycles (2005 and 2007)

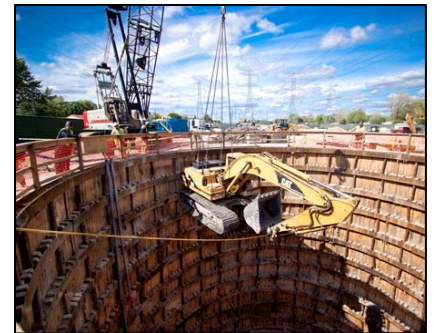


Intercounty Drains Program

County and intercounty drains are the prerequisite infrastructure for Michigan's economic development. They have played a key role in the development of agriculture, roads and highways, residential and commercial properties by removing excess soil moisture, reducing flood impacts, and improving public health. Michigan has more than 35,000 miles of legally established "public" drains serving over 17,000,000 acres of agricultural and urban lands and roadways. Since 1923, the MDARD has been responsible under the Drain Code to administer the proceedings to establish, improve, and maintain storm drains and sanitary sewers involving lands in two or more counties. Staff serve as deputies for the Director and chair of the drainage board that is required for each drain whose members are the county drain/water resource/public works commissioners of the affected counties. There are approximately 1,100 intercounty drains in Michigan with an estimated length of over 6,000 miles serving approximately 6 million acres.

2011 Accomplishments

- The program administered petitioned projects with an estimated combined project cost of more than \$ 52 million with a total of 475,000 acres served, affecting 115 miles of drains.
- Program staff responded to 152 drain maintenance requests involving 29 counties; improving approximately 136 miles of drains, serving an estimated 336,000 acres with an approximate cost of \$635,000. All project costs are paid from special assessments on private property and public corporations with the assistance of Clean Michigan Initiative and the Great Lakes Soil Erosion and Sedimentation Control grants.
- The Oakland Macomb Interceptor rehabilitation project is in its third year of a 6 year rehabilitation project and is the most expensive and challenging intercounty drainage project in the State's history. The system comprises over 21 miles of up to 12 foot diameter tunnel at depths reaching over 100 feet deep. This sanitary sewer interceptor drain serves over 800,000 people and delivers waste flows to the City of Detroit's massive sanitary sewage disposal plant. A 6 year plan to repair and reinforce the tunnel, including installation of structures for maintenance, is designed to prevent collapse and extend the service life. The total estimated cost is approximately \$160 million. The initial construction contracts, engineering, land rights, and legal costs were financed by \$42 million in a State Revolving Fund (\$15 million of which was forgiven under the Stimulus program), grants, and a district bond for an additional \$6.9 million.



Michigan Agriculture Environmental Assurance Program

The Michigan Agriculture Environmental Assurance Program (MAEAP) is a holistic approach to environmental protection. It helps farmers evaluate their entire operation and truly make sustainable management decisions, balancing society's needs, the

environment, and economics. MAEAP is a partnership effort that aims to protect natural resources and build positive communities by counseling Michigan farmers that operate farms of all sizes and all commodities on environmentally responsible agricultural production practices. Public Acts 1 and 2 of 2011 codify MAEAP into law, providing incentives and structure. To become MAEAP verified, farmers must complete three comprehensive steps: educational seminars, a thorough on-farm risk assessment, and development and implementation of an action plan addressing potential environmental risks. The MDARD conducts an on-farm inspection to verify program requirements related to applicable state and federal environmental regulations, including GAAMPs. To retain MAEAP verification, a farm must repeat all three steps including an MDARD inspection every three years. MAEAP supporters include over 50 industry, university, state and federal agency, local government, and conservation groups.

2011 Accomplishments:

- Approximately 5,000 Michigan farmers attended educational sessions geared toward environmental stewardship and MAEAP verification.
- Currently, over 10,000 Michigan farms have begun the MAEAP verification process with over 1,000 Michigan MAEAP farm verifications completed.
- Growers spent more than \$1,200,000 for practice implementation working toward MAEAP verification.
- Verified nutrient management plans are in place on almost half a million acres of Michigan farmland.
- The erosion-reducing aspects of MAEAP verification have kept over 200,000 tons of farming soil where it belongs: in farm fields. That's 18,164 ten-yard dump trucks of soil not reaching streams and lakes – every year. (FY11 showed a 43% increase in sediment reduction.)
- Annual phosphorus reduction to surface waters through MAEAP is over 340,000 pounds per year. (31% increase from FY10)
- Nitrogen reduction to surface waters through MAEAP is almost 750,000 pounds per year. (24% increase from FY10)
- Phosphorus & Nitrogen reduced over the last three years on MAEAP farms could have grown enough algae to cover over 85% of Higgins Lake at ¼" depth.
- Over 240,000 acres receiving pesticides have approved pest management plans.



- Almost 6,000 acres of filter strips have been installed and nearly 1,300 gullies have been stabilized, improving water quality.

MAEAP - Technical Assistance

Funded through legislation established in 1995, MAEAP Technical Assistance delivers MAEAP through on-farm technical assistance, using farm specific risk assessments, education, and conservation plan development to implement practices and coordinate local, state and federal agency resources to help reduce identified environmental risks, and make progress toward MAEAP verification. The assistance is funded through fees assessed on the sale of pesticides and nitrogen fertilizers and through several secured grants.

Technical Assistance is addressed through a variety of distinct programs:

- Agricultural
- Engineering Assistance
- Clean Sweep
- Pesticide Container Recycling
- Spill Response
- Groundwater Monitoring
- Golf Courses (Michigan Turfgrass Environmental Stewardship)
- Residential

MAEAP - Agricultural Program

The MAEAP Agricultural Program is available locally through conservation district water stewardship technicians. In FY2011, 43 positions were funded – providing both water stewardship (27) and conservation technical assistance initiative (16) technicians. Water stewardship practices are in conformance with the Right to Farm Generally Accepted Agricultural Management Practices (GAAMPs) and the United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) standards, and address state and federal environmental regulations. The primary means for identifying on-farm environmental risks are with the assessment tools – Livestock*A*Syst, Farm*A*Syst and various Crop*A*Syst.

The A*Syst evaluation is conducted by conservation district water stewardship technicians who work one-on-one with farmers to identify environmental risks, create a plan to eliminate the risks, identify potential funding sources to address the identified risks, and provide the technical assistance needed to implement the plan.



Over the past fifteen years, more than 15,900 Farm*A*Syst and 1,450 Crop*A*Syst evaluations have been completed, which reassure the public that producers are using environmentally sound practices, and are helping to foster positive community and neighbor relations.

When identified environmental risks have been eliminated, farmers are eligible for MAEAP verification in the Livestock, Farmstead, and Cropping Systems; 430 farms have been verified in the Livestock System (20% increase from 2010), 385 farms have been verified in the Farmstead system (16% increase over 2010), and 189 farms have been verified in the Cropping System (12% increase over 2010).

In addition, water stewardship technicians offer technical assistance to develop Farm Emergency Plans, which provide farmers a plan to mitigate on-farm emergencies and provides emergency first-responders information on the location of on-farm hazardous materials. Water stewardship technicians also work with farmers to create emergency spill kits that provide a quick way to contain and clean up spills of pesticides and fertilizers.

2011 Accomplishments:

- 3,718 on-farm risk reductions (pesticide storage security, anti-backflow device installation, drift management plans, triennial water testing, pesticide container triple-rinsing, etc.)
- 380 Farm*A*Systs and 234 Crop*A*Systs completed
- 219 new Farm Emergency Plans implemented, including pesticide, manure, and silage considerations. Additionally, 176 plans were revised.
- 99 emergency spill kits created
- 13 abandoned wells were decommissioned

Conservation Technical Assistance Initiative (CTAI) Program

The goal of the CTAI Program is to assist conservation districts in their efforts to help Michigan citizens better understand, plan, manage, protect, and utilize their natural resources. The program provides funds for conservation districts to hire Engineers and Soil Conservationists to provide information and technical assistance to private landowners implementing conservation practices. These conservation practices are funded through the *Federal Farm Security and Rural Investment Act of 2008*, also known as the 2008 Farm Bill.

The engineers and soil conservationists work directly with the USDA-NRCS staff to complete the work. Currently, there are engineers located in Genesee, Kent, Sault Ste. Marie, and Otsego Counties. Soil conservationists are located in Allegan, Branch, Clinton, Delta, Huron, Jackson, Isabella, Missaukee, Montmorency, Oceana, and Van Buren Counties. They serve land owners in these counties, as well as adjacent counties.

Funding for the program comes from the MAEAP and the USDA-NRCS via a Contribution Agreement between the MDARD and the USDA.

CTAI employees have worked on a variety of projects during 2011 including design, inventory and evaluation, surveying, pre-construction meetings, construction inspections, plan review, and conservation planning.

2011 Accomplishments:

- 1,039 practices were designed and installed, including agrichemical containment facilities, waste storage facilities, heavy use area protection, pest management plans and nutrient management plans.
- The assistance provided through the CTAI Program this fiscal year allowed for over \$11 million being made available to Michigan farmers in Federal Cost Share. In addition, landowners have contributed approximately \$7 million locally to complete these projects. This provides a total investment of \$18 million spent on conservation practices through the CTAI Program alone.
- The program completed 46 Risk Assessments and implemented 200 risk reduction practices.



MAEAP - Clean Sweep Program

The goal of the Clean Sweep Program in Michigan is proper disposal of unused and unwanted pesticides. The Clean Sweep Program, a partnership of federal, county, and local government, had 16 permanent Clean Sweep sites located throughout the state in 2011 and has collected nearly 2 million pounds of pesticides since 1996. Michigan residents may dispose of pesticides at any Clean Sweep site, which will collect unwanted product for shipping and proper disposal, free of charge. In addition, using the effective Clean Sweep structure already in place, the MDEQ has maintained a Memorandum of Understanding with the MDARD to provide funding for the collection of mercury from State residents.

The MDARD secured \$475,530 from the Environmental Protection Agency through the Great Lakes Restoration Initiative (GLRI) to expand Clean Sweep collection efforts for 2011 and 2012. The project offers the opportunity to expand the number and reach of Clean Sweep sites as well as fund pharmaceutical disposal for the duration of the grant cycle.

2011 Accomplishments:

- 120,014 pounds of unwanted or unusable pesticides were collected, including the following active ingredient weights:
 - 1,309 pounds of persistent, bioaccumulative toxic pesticides (DDT, Chlordane)
 - 375 pounds of pesticides containing arsenic



- 10,031 pounds of unwanted pharmaceuticals
- More than 1,500 pounds of mercury

Properly disposing of these highly toxic chemicals reduces the risk that they would eventually make our environment in a way that jeopardizes Michigan's environment.

MAEAP - Pesticide Container Recycling Program

The MAEAP Pesticide Container Recycling Program provides a way for agricultural producers and agri-businesses to collect and recycle plastic HDPE pesticide containers. Proper rinsing and cleaning of the containers insures that excess pesticides are not introduced into the groundwater and is essential to the program. Collecting and recycling properly cleaned pesticide containers conserves valuable landfill space and reduces the need for new raw material. The plastics collected are recycled and utilized for drain tiles, shipping pallets, fence posts, and other non-consumable, low human contact products. Since the inception of the program in 1993, Michigan has recycled 1.28 million pounds of pesticide containers.

2011 Accomplishments:

- More than 30 commercial agri-businesses and turf chemical distributors served as collection sites and/or coordinated consolidation of pickups for their regional satellite offices.
- 79,000 pounds of plastic pesticide containers were collected and sent to a regional center to be ground and recycled.



MAEAP - Spill Response Program

The MAEAP Spill Response Program provides for the rapid, cost-effective cleanup, and proper use or disposal of manure, pesticides, and fertilizer.

The MDARD staff responds to incidents reported to the MDARD Spill Hotline by emergency first responders, responsible parties, or other persons that observe an uncontrolled release. Staff works with the responsible party to contain the spill. Once any immediate environmental concerns are abated, the responsible party is provided with advice on how to best clean-up the spilled material. In nearly all situations, the spilled material is land applied at agronomic rates, avoiding costly landfill expenses.

2011 Accomplishments:

- 14 spills were successfully resolved including five commercial turf companies, four private applicators, and five commercial agri-businesses.

The most notable incident involved a release of approximately 5,000 gallons of liquid hog manure



when a transfer line breeched, releasing the manure to a county drain. Quick action by the farmer and communication with the MDARD staff resulted in a contact to a local contractor who was able to block the drain ahead of the manure movement. A liquid manure spreader and pump were successfully used to vacuum the manure from the drain.

MAEAP - Water Monitoring Program

The MAEAP Water Monitoring Program samples private wells across the state for general chemistry, pesticides, and volatile organic compounds. Monitoring is also conducted to help the MDARD and its stakeholders develop and share information on risks posed by various pesticide and nitrogen fertilizer use practices.

The program supports the State Groundwater Management Plan by providing data on private drinking water well quality to retain pesticide product registrations, where those products can be used without negative impacts on groundwater quality.

The program provides data on nitrate and pesticide concentrations to well users, investigates the nature and extent of pesticide contamination at contaminated sites, coordinates information on potential health impacts from the use of contaminated water supplies, and provides alternate water supplies, including well replacement for private well owners with pesticide levels above public drinking water standards. The monitoring program has screened over 31,000 wells for atrazine and nitrate contamination since 1997. The data has allowed the program to identify several factors in Michigan associated with nitrate contamination and alert residents using contaminated water of possible risks.

2011 Accomplishments:

- 38 baseline sample sets collected. This includes confirmation samples; periodic monitoring on wells known to be contaminated and envelope monitoring.
- Over 432 water samples were screened for nitrite and nitrate. The results are mailed to all participants and include recommendations on dealing with contaminated wells and additional sources of information.

MAEAP - Michigan Turfgrass Environmental Stewardship

Established in 1998, the Michigan Turfgrass Environmental Stewardship Program (MTESP) is dedicated to protecting ground and surface water resources by advancing turfgrass management practices, preventing pollution, and increasing regulatory compliance within the golf industry. The program represents a partnership between the MDARD, Michigan State University, and the Michigan Turfgrass Foundation.

MTESP staff work with golf course superintendents to conduct golf course site visits that identify environmental risks on the property and develop Environmental Action Plans to address those risks. Golf courses that have



identified and abated all environmental risks on the property become “certified” courses in the MTESP.

At the conclusion of FY 2011, 41 golf properties participate in the program and 27 properties have been certified.

MAEAP - Residential Program

The MAEAP Residential Program, known as the Michigan Water Stewardship Program, provides technical assistance through web-based interactive education and outreach materials. The web site, www.MiWaterStewardship.org, targets both urban and rural residents to assist their adoption of stewardship practices that reduce environmental risks to water and other related natural resources. The site is used by urban and rural schools, municipalities, nature centers, watershed groups, and adults to learn more about Great Lakes water quality. Additional components of the online training are directed to create youth stewards and provide educators with many valuable teaching resources. Students and community groups have submitted videos and news items to the site for outreach.

2011 Accomplishments:

- The site was officially launched on March 22, World Water Day.
- The website was recognized by the Great Lakes Information Network as the April 2011 Site of the Month.
- Compiled information indicates 664,109 “views” in the year and over 1,100 unique visitors in peak months



Michigan Conservation Districts

Created during the “dust bowl” days to deal with catastrophic soil erosion, Michigan’s conservation districts now take an ecosystem approach toward the stewardship of the state’s natural resources. In partnership with the MDARD ESD and federal agencies, local conservation districts throughout the state provide the link between land managers and the agencies and organizations funding conservation programming. Conservation districts continually assess local needs and work cooperatively with their community to prioritize and solve natural resource problems. Conservation districts provide the local point of access to practical, everyday aspects of resource management and help Michigan citizens conserve and protect our natural resources. Conservation districts have delivered a wide variety of programs to Michigan’s citizens. Conservation districts are the delivery system for all MDARD conservation programs.

In addition to those identified above, the following programs are delivered through conservation districts.

Bovine Tuberculosis Risk Mitigation Program

The Bovine Tuberculosis (TB) Risk Mitigation Program involves working with northern Michigan livestock producers using a risk assessment tool (Wildlife Risk*A*Syst) the MDARD created for the producers' use. On-farm assessments have been conducted for farms selling breeding stock and feeder cattle. Local conservation districts have been working with livestock producers to implement practices which reduce the potential for the transmission of bovine TB from wildlife to their livestock.

The Alpena Conservation District has provided assistance to livestock producers whose risk assessments identified the need to secure their feed from deer or elk. The practices include the construction of secure fenced areas for the storage of hay and silage, or the construction of structures (hoop barns) for the storage of hay.

\$1,089,055 in general funds has been allocated to help livestock producers with the construction of:

- 70 hoop structures
- 4 fenced secure feed storage projects
- 20 feed security projects are waiting to be awarded



Risk assessments have identified 47 additional producers who need funding (\$705,000). The Alpena Conservation District staff has assisted livestock producers with access to federal Farm Bill funding through the Environmental Quality Incentives Program (EQIP). USDA NRCS has provided \$1.5 million in EQIP funding for Northeast Michigan. The funding was made available through the efforts of Senator Stabenow.

Conservation Reserve Enhancement Program

The Conservation Reserve Enhancement Program (CREP) has helped protect Michigan's environment and enhance wildlife since 2000. The State of Michigan has entered into a partnership agreement with the federal government to establish this very successful conservation program. The partnership includes private and public conservation organizations, universities, and farm landowners to implement conservation practices relative to soil erosion, water quality, and wildlife habitat. The CREP includes eligible farmland in Saginaw Bay, River Raisin, Lake Macatawa, and the Western Lake Erie Basin Watersheds, covering all or parts of 30 counties in Michigan. CREP targets nonpoint source pollution resulting from crop production, reducing the transport of phosphorus, nitrates, and pesticides by 70 percent. The overall goal of the program is to enroll 85,000 acres of conservation practices, promoting the use of native grasses and wildflowers, improving habitat and wildlife diversity through leveraging federal funds. The technical assistance for CREP is delivered through conservation districts.

2011 Accomplishments:

- Farmers and landowners have enrolled 72,189 acres in the program, including 36,381 acres of corridor practices, 19,419 acres of wetland restoration practices, 1,925 acres of field windbreaks, and 14,464 acres of diverse grassland cover on highly erodible cropland.
- 6,465 contracts with private landowners protect the sites for 15 years.
- Michigan was awarded a \$500,000 grant from the USDA to fund a voluntary Hunting Access Program.
- CREP will be a critical component for the recently announced “Pheasant Restoration Initiative”.



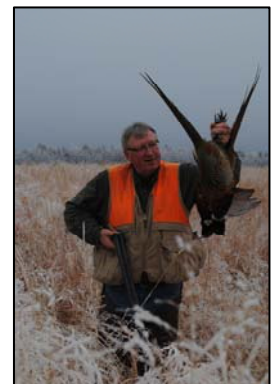
Hunting Access Program

Michigan's Hunting Access Program (HAP) was created in 1977 to increase public hunting opportunities in southern Michigan where 97 percent of the land base is privately owned. Providing access to quality hunting lands close to urban centers is a key component to attracting new and retaining current hunters. Utilizing funds from a USDA grant, the ESD working, with the Michigan Department of Natural Resources (MDNR) Wildlife Division, is working to expand HAP enrollment from 47 farms and 7,500 acres in 2010 to 100 farms and 15,000 acres by 2013. Partnering with 20 local conservation districts to handle local HAP promotion, enroll new farms, and provide landowner support has been a tremendous success. In 2011, 30 new farms, totaling more than 3,200 acres, were added to HAP. Many of the new farms have improved the habitat on their land by enrolling in Farm Bill programs like CREP and the Wetland Restoration Program.

Pheasant Restoration Initiative (PRI)

The ringed necked pheasant is one of the most popular game birds in North America. Although its native range is Asia, it has adapted well to Michigan's farmland. The Pheasant Restoration Initiative proposes to greatly expand enrollment in Farm Bill programs that establish grassland habitat. Grasslands are critical nesting and brood rearing habitats for pheasant. This habitat also provides for the protection of water quality by trapping sediment and nutrients from farmland.

The initiative is a collaborative effort between state and federal agencies including: MDNR, USDA, and Fish and Wildlife Services. Pheasants Forever, Ducks Unlimited, and the Wild Turkey Federation have also been active.



Restoration of pheasant populations will expand recreational and economic opportunities for rural communities. The economic impact of hunting activities in Michigan is \$1.3 billion.

The recruitment of young hunters and the return of older hunters will be achieved by increasing access to quality habitat and a successful hunting experience.

The ESD manages several grants with conservation districts to fund the Farm Bill Biologists who provide technical assistance to private landowners interested in improving the habitat on their land.

Emerald Ash Borer Program

Conservation districts in the Upper Peninsula provided assistance to the MDARD's Pesticide and Plant Pest Management Division with the implementation of the "Slowing Ash Mortality" (SLAM) Pilot Project. Conservation district foresters and field crews completed a significant number of site specific projects designed to test control strategies for the Emerald Ash Borer. Conservation district staff members were employed during 2011 to conduct these studies in the central to eastern Upper Peninsula. The conservation districts in the western Upper Peninsula set, monitored, and recovered 2,006 artificial traps.

Migrant Labor Housing Program

Michigan's unique environment makes it possible to grow a variety of specialty crops. Thirty-seven commodities, ranging from fruits and vegetables to bedding plants and Christmas trees are labor intensive, hand-harvest dependent, and could not be produced without migrant farm laborers. These agricultural products contribute an estimated \$2.3 billion to Michigan's economy each year. Properly constructed and maintained migrant labor housing is essential to attracting workers needed to keep Michigan's diverse agriculture viable. The Migrant Labor Housing Program is intended to assure housing provided to migrant workers and their families is safe and healthy.



2011 Accomplishments:

- Program staff conducted 1,008 inspections.
- Licensed 777 housing sites in Michigan.
- 3,798 living units licensed for occupancy, providing a capacity to house 22,820 people.
- A total of 43 living units were licensed for 417 H2A foreign agricultural workers.



Right to Farm

The Right to Farm (RTF) Program is comprised of two parts, environmental complaint response and site selection and odor control for new and expanding livestock production facilities. Both components of this program contribute to Michigan's pollution prevention strategy. Michigan's Right to Farm Act provides farmers with nuisance protection when they conform to Generally Accepted Agricultural and Management Practices (GAAMPs) that apply to their farm operations.

RTF - Environmental Complaint Response

The Right to Farm environmental complaint response program began in 1986 and has investigated and resolved over 3,000 complaints. Individuals can have their environmental concerns about farms addressed by filing a formal complaint for investigation with the MDARD. Investigations include an on-site inspection within seven business days of complaint receipt. The management of activities, conditions, and/or materials of concern associated with on-farm production practices are compared to applicable GAAMPs by MDARD field inspectors.

2011 Accomplishments:

- Responded to 112 new environmental complaints
- Conducted 125 follow up inspections
- Received 19 pro-active requests for an inspection/GAAMPs determination
- 1,020 Animal Units excluded from surface waters
- Runoff control, nutrient management, odor management, and groundwater protection practices implemented on 56 farms to resolve verified complaints
- 9 farms developed and implemented Manure Management System Plans (MMSP) or Nutrient Management Plans (NMP) covering 2,183 animal units on 3,758 acres of crop land

RTF - Site Selection

The RTF site selection process for new and expanding livestock production facilities provides farmers and their neighbors in the surrounding communities with environmental assurance, social compatibility, and sustainable farm operations. Since June 2000, more than 330 producers in 41 Michigan counties have utilized the site selection process and invested over \$350 million on the construction of new and expanding livestock and poultry facilities.

2011 Accomplishments:

- 24 new and expanding farm facilities completed the site verification process.
- 17 existing farm facilities expanded; 10 dairy, 4 swine, 2 poultry and 1 equine.

- 7 new farm livestock facilities were built; 1 dairy, 3 swine, 1 poultry, 1 beef, and 1 new manure storage structure.
- Comprehensive Nutrient Management Plans (CNMP) or Manure Management System Plans (MMSP) were developed and implemented on each of these 24 new/ expanded livestock and poultry facilities.

